

ABSTRACT

A process of making a strained silicon-on-insulator structure is disclosed. A recess is formed in a substrate to laterally isolate an active area. An undercutting etch forms a bubble recess under the active area to partially vertically isolate the active area. A thermal oxidation completes the vertical isolation by use of a minifield oxidation process. The recess is filled to form a shallow trench isolation structure. An active device is also disclosed that is achieved by the process. A system is also disclosed that uses the active device.